



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0833; Project Identifier MCAI-2021-00245-T; Amendment 39-22258; AD 2022-25-02]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2020-18-04, which applied to Airbus SAS Model A350-941 and -1041 airplanes. AD 2020-18-04 required a one-time health check of the slat power control unit (PCU) torque sensing unit (TSU) for discrepancies, and corrective actions if necessary; a detailed inspection of the left-hand (LH) and right-hand (RH) slat transmission systems for discrepancies, and corrective actions if necessary; and LH and RH track 12 slat gear rotary actuator (SGRA) water drainage and vent plug cleaning (which includes an inspection for moisture). This AD was prompted by a determination that requiring modification of the PCU by replacing each affected slat PCU with a serviceable PCU (one having a different part number) is necessary. This AD continues to require the actions required by AD 2020-18-04, and also requires modification (replacement of each affected slat PCU with a slat PCU having a different part number), and revising the limitations on the installation of affected parts; as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2021-0833; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For EASA material incorporated by reference in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2021-0833.

FOR FURTHER INFORMATION CONTACT: Dat Le, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 516-228-7317; email dat.v.le@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2020-18-04, Amendment 39-21225 (85 FR 54896, September 3, 2020) (AD 2020-18-04). AD 2020-18-04 applied to all Airbus SAS Model A350-941 and -1041 airplanes. AD 2020-18-04 required a one-time health check of the slat PCU TSU for discrepancies, and corrective actions if necessary; a detailed inspection of the LH and RH slat transmission systems for discrepancies, and corrective actions if necessary; and LH and RH track 12 SGRA water drainage and vent plug cleaning (which includes an inspection for moisture). The FAA issued AD 2020-18-04 to address a slat system jam during landing phase which could lead to a double shaft disconnection or rupture, potentially causing one or more slat surfaces to be no longer connected to either the slat wing tip brake or the slat PCU, possibly resulting in reduced control of the airplane.

The NPRM published in the *Federal Register* on September 30, 2021 (86 FR 54136). The NPRM was prompted by AD 2021-0053R1, dated April 19, 2021, issued by European Union Aviation Safety Agency (referred to after this as the MCAI). The MCAI states that since EASA AD 2020-0163R1, dated August 7, 2020 (which corresponds to FAA AD 2020-18-04), was issued, EASA received information that prompted it to add a requirement for repetitive TSU health checks, introduce a definition of serviceable part to clarify actions that have to be accomplished on affected parts, and remove a requirement for a water drainage and vent plug cleaning of the LH and RH track 12 SGRA.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2021-0833.

In the NPRM, the FAA proposed to remove a requirement for water drainage and vent plug cleaning of the SGRA, require repetitive health checks of the slat PCU TSU, a detailed visual inspection of the slat transmission systems, and corrective actions if

necessary, as specified in EASA AD 2020-0163R1.

The FAA issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to supersede AD 2020-18-04. The SNPRM published in the *Federal Register* on June 1, 2022 (87 FR 33076) (the SNPRM). The SNPRM was prompted by EASA issuance of AD 2021-0275, dated December 10, 2021, (EASA AD 2021-0275), which determined that requiring modification of the PCU by replacing each affected slat PCU with a serviceable PCU (one having a different part number) is necessary, and clarified the limitations related to when an affected slat PCU may be installed on an airplane. In the SNPRM, the FAA proposed to require modification (replacement of each affected slat PCU with a slat PCU having a different part number), requiring an inspection report, and revising the limitations on the installation of affected parts. The FAA is issuing this AD to address a slat system jam during landing, which could lead to a double shaft disconnection/rupture, potentially causing one or more slat surfaces to be no longer connected to either the slat wing tip brake or the slat PCU, possibly resulting in reduced control of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Delta Air Lines (Delta). The following presents the comments received on the SNPRM and the FAA's response to each comment.

Request for Removing the Initial Health Check Requirement

Delta requested that the terminating action (modification of the PCU) specified in paragraph (6) of EASA AD 2021-0275 for the repetitive health checks in paragraph (4) of EASA AD 2021-0275 be extended to the initial health check specified in paragraph (2) of EASA AD 2021-0275 too. Delta noted that it seems that the health checks are intended only for those slats that have not been modified. Delta stated that for a modified PCU, a

detailed inspection (as specified in paragraph (1) of EASA AD 2021-0275) is required and that an initial health check would not reveal further information or instruction. Delta added that the detailed inspection and initial health check have the same compliance time. Delta recommended revising paragraph (h) of the proposed AD (in the SNPRM) to permit the terminating action to be used for the initial health check too.

The FAA agrees to the request for the reasons that Delta provided. The FAA has revised paragraph (h) of this AD to provide terminating action for the initial health check.

Request for Removal of the Reporting Requirement

Delta requested removing the requirement to send inspection reports to Airbus. Delta pointed out that Airbus provided a modification that terminates inspection requirements. Delta noted also that if there are findings that require a request for repair instruction, the operator would need to provide details of the discrepancies before receiving repair instructions. Delta recommended revising paragraph (h) of proposed AD (in the SNPRM) to remove the reporting requirement and state that reporting is not required.

The FAA agrees with the request for the reasons stated. The FAA has revised paragraph (h) of this AD and the Cost of Compliance and Related Service Information Under 1 CFR Part 51 sections of this AD accordingly; and added paragraph (i) to this AD to state that inspection reports are not required.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition

on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the SNPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0275 specifies procedures for repetitive health checks of the slat PCU TSU for discrepancies, and corrective actions (replacement) if necessary; a detailed visual inspection of the LH and RH slat transmission systems for discrepancies, and corrective actions (repair) if necessary; and a modification of the PCU (replacement of each slat PCU having part number (P/N) 4785A0000-04 or 4785A0000-05 with a slat PCU having P/N 4785A0000-06), which terminates the health checks. EASA AD 2021-0275 also specifies limitations for installing affected slat PCUs. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Interim Action

The preamble to AD 2020-18-04 explains that the FAA considers those requirements “interim action” and that the manufacturer is developing a final action to address the unsafe condition. That AD explains that the FAA might consider further rulemaking if a final action is identified. The same explanation was in the preamble of the NPRM. Since the FAA issued AD 2020-18-04 and the NPRM, the manufacturer has developed a modification to the PCU, and the FAA has determined that further rulemaking is indeed necessary; this AD follows from that determination.

Costs of Compliance

The FAA estimates that this AD affects 15 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 40 work-hours X \$85 per hour = Up to \$3,400	\$275,300	Up to \$278,700	Up to \$4,180,500

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs specified in this AD.

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a

substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2020-18-04, Amendment 39-21225 (85 FR 54896, September 3, 2020); and

b. Adding the following new airworthiness directive:

2022-25-02 Airbus SAS: Amendment 39-22258; Docket No. FAA-2021-0833; Project Identifier MCAI-2021-00245-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2020-18-04, Amendment 39-21225 (85 FR 54896, September 3, 2020) (AD 2020-18-04).

(c) Applicability

This AD applies to all Airbus SAS Model A350-941 and -1041 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Reason

This AD was prompted by a report of a slat system jam during landing, the determination that health checks must be repetitive to monitor torque sensor unit (TSU) wear, and the development of a modification that terminates the health checks. The FAA is issuing this AD to address a slat system jam during landing, which could lead to a double shaft disconnection/rupture, potentially causing one or more slat surfaces to be no longer connected to either the slat wing tip brake or the slat power control unit (PCU), possibly resulting in reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0275, dated December 10, 2021 (EASA AD 2021-0275).

(h) Exceptions to EASA AD 2021-0275

(1) Where EASA AD 2021-0275 refers to March 11, 2021 (the effective date of EASA AD 2021-0053, dated February 25, 2021), this AD requires using the effective date of this AD.

(2) Where paragraph (2) of EASA AD 2021-0275 specifies compliance times for accomplishment of certain actions, replace the text “but not exceeding the compliance time for the repeat health check as determined in accordance with the instructions of AOT [Alert Operators Transmission] A27P015-20, or AOT A27P016-20,” with “but within the applicable compliance time specified in paragraph 4.2.3.1 of AOT A27P015-20; or 4.2.2.2.2 or 4.2.2.3.2 of AOT A27P016-20; as applicable.”

(3) Where paragraph (4) of EASA AD 2021-0275 specifies “Appendix 5 of the AOT,” use “the Appendix labeled TSU Condition Check Flowchart of the AOT.”

(4) Where note 2 of EASA AD 2021-0275 states that the certificate of release accompanying a replacement part “will clarify,” use “may be used to clarify.”

(5) The “Remarks” section of EASA AD 2021-0275 does not apply to this AD.

(6) Where EASA AD 2021-0275 refers to its effective date, this AD requires using the effective date of this AD.

(7) Where paragraph (7) of EASA AD 2021-0275 states that the modification specified in paragraph (6) of EASA AD 2021-0275 is terminating action for paragraph (4) of EASA AD 2021-0275, this AD considers accomplishing the modification specified in paragraph (6) of EASA AD 2021-0275 to also be terminating action for the initial health check specified in paragraph (2) of EASA AD 2021-0275.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2021-0275 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (j)(2) of this AD, if any service information referenced in EASA AD 2021-0275 contains paragraphs that are labeled as RC, the instructions in RC paragraphs, including subparagraphs under an RC paragraph, must be done to comply with this AD; any paragraphs, including subparagraphs under those paragraphs, that are not identified as RC are recommended. The instructions in paragraphs, including subparagraphs under those paragraphs, not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the instructions identified as RC can be done and the airplane can be put back in

an airworthy condition. Any substitutions or changes to instructions identified as RC require approval of an AMOC.

(k) Additional Information

For more information about this AD, contact Dat Le, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 516-228-7317; email dat.v.le@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) European Union Aviation Safety Agency (EASA) AD 2021-0275, dated December 10, 2021.

(ii) [Reserved]

(4) For EASA AD 2021-0275, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(5) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(6) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on November 28, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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